home. Aug. 12th, she made her first visit at 7.40, and still went to the closed window. Aug. 13th, her first visit was at 6.15; she went to the closed window and remained buzzing about there till 7, when I caught her and put her out at the open one by which she always entered. Aug. 15th and 16th, she continued to visit the honey, but still always, even after ten days' experience, continued to go to the closed window (which was in the direct line home), though on finding it closed she returned and went round through the open window by which she entered.

Note on the Plastron of the Gangetic Mud-Turtle (*Emyda dura* of Buchanan Hamilton). By John Anderson, M.D., F.L.S.

[Read March 16, 1876.]

On removing a living embryo of *Emyda dura* *, B. H., from the egg, it was found doubled on itself through the middle of the plastron, the fold passing transversely a short way before the umbilical area, traversing the line of junction of the two halves of each hyoplastron and the interval between them and the hypoplastron. The abdominal surfaces of the two halves of the body were opposed to each other; the neck and head of the embryo rested by their under surfaces on the abdominal aspect of the postumbilical portion of the plastron, the limbs being applied to the sides of the head. Straightening the embryo, I removed the plastron entire, and was astonished to find that it differed materially in one respect from the generally accepted views regarding the structure of the plastron of the Chelonia. All the bones, with the exception of the first pair, were arranged around the membranous or semicartilaginous area of the umbilicus, and were well ossified. But instead of finding only nine bones in the plastron, eleven bones were discovered to be present. The two additional elements, occurring in the position of each hyoplastron, were due to the circumstance that the latter elements had originated in two ossific centres. All the other bones were the same as in the plastron of *Trionyx* †. Each hyoplastron consisted

* I have applied this term to the Gangetic *Emyda*, because it appears to me to be distinct from the Madras species to which the names *E. granosa* and *E. punctata* are more correctly referable.

† Compare Parker's figures &c., from Rathke, of the plastron of the young of this and other genera, pl. xii. figs. 11–17 ('Monog. Shoulder-girdle and Sternum of Vert.' Ray Soc. 1868).

of two small bony spicules, the most external (4, see sketch, p. 516) corresponding to the outer wing of the hyoplastron of *Trionyx*, and the internal spicule (3) to the forwardly and inwardly projecting process of the hyoplastron of that genus of freshwater turtle, to the outside of which the backwardly and outwardly directed ramus of the entoplastron is applied.

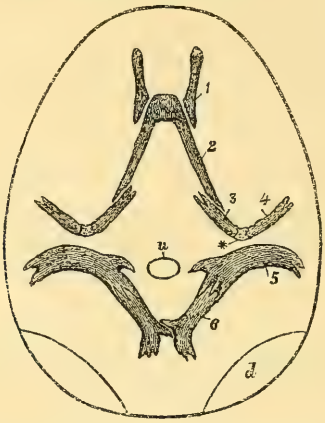
These two bones or elements of the hyoplastron of *Emyda dura*, in the two individuals examined, were separated from each other posteriorly, opposite to the hypoplastron, by a cartilaginous interval (*) which permitted of their being freely moved one upon the other. At this point, or their angle of convergence, a membranous interval existed between them and the hypoplastron, corresponding to the fold of the embryo. The plastron of this genus, therefore, if these observations are verified by further research, and if none of the other elements are of a compound nature, may prove to consist of eleven distinct bones, two of which occupy the position of the hyoplastron of *Trionyx*. This peculiar character of the plastron of *Emyda*, if of general occurrence (which has yet to be ascertained), does not at any rate extend many hours beyond embryonic life—because in recently born individuals I have never observed the hyoplastron in any other condition but that of a single bone which unites at an early age with the hypoplastron, while in *Trionyx* and *Clutra* the embryos which I have examined have the hyoplastron consisting of one piece, which only unites with the hypoplastron at an advanced period of life.

Whatever may be the explanation of these two instances of a compound hyoplastron in *Emyda dura*, there can be no doubt of the accuracy of the observation, which was verified by one of my assistants; but it is of sufficient importance, whatever be its cause, to be recorded and to receive further investigation.

P.S.—Interested in the foregoing fact of development and of its value at issue, I append the subjoined memorandum from a palæontologist.

"The condition of the hyosternal bone described in this young specimen by Dr. Anderson is suggestive of several fossil types. In an undescribed genus from the London Clay, known as *Emys levis*, as well as in *Platemys Bowerbankii*, there are distinct lateral elements in the plastron which occupy the position of the lateral ossifications of Dr. Anderson's specimen, being placed between the hyo- and hypo-sternal elements and the marginal bones. In

the London-Clay fossil *Platemys Bullocki*, and in the *Pleurosternon* from the Purbeck limestone, these elements extend right across the plastron, so as to entirely separate the hyosternal from the hyposternal bones."—H. G. SEELEY.



Diagrammatic sketch, about natural size, to illustrate the condition of the plastron in the embryonic specimen of *Emyda dura* above described. 1 to 6, the six separate ossific pieces of one side, the second counting but one on both sides, = 11 in all; 3 and 4, the double bony centres of the hyoplastron united by (*) a cartilaginous element, ultimately forming an ossific union between the parts in question; 5 and 6, hypoplastron; *u*, umbilicus; *d*, depression on the general surface of the plastron.

Notes on Lowe's MS. List of Webb's Type Shells from the Canaries (1829), and on the Annotations thereon of D'Orbigny (1839), and Lowe (1860). By the Rev. R. Boog WATSON, F.R.S.E. & F.G.S. Communicated by J. Gwyn JEFFREYS, Esq., Treas.L.S.

[Read April 6, 1876.]

IN the year 1829 Mr. Webb sent to Mr. Lowe, in Madeira, various sea-shells which he had got in the Canaries.

Some ten years later the whole of the fuller material accumulated by Mr. Webb and by M. Berthelot were published under the title 'Mollusques, &c. &c., recueillis aux îles Canaries, par MM. Webb et Berthelot, et décrits par Alcide d'Orbigny.'

In this work M. d'Orbigny refers more than once to unique